



## Hydronic Heaters

http://www.epa.gov/woodheaters/basicinfo.htm

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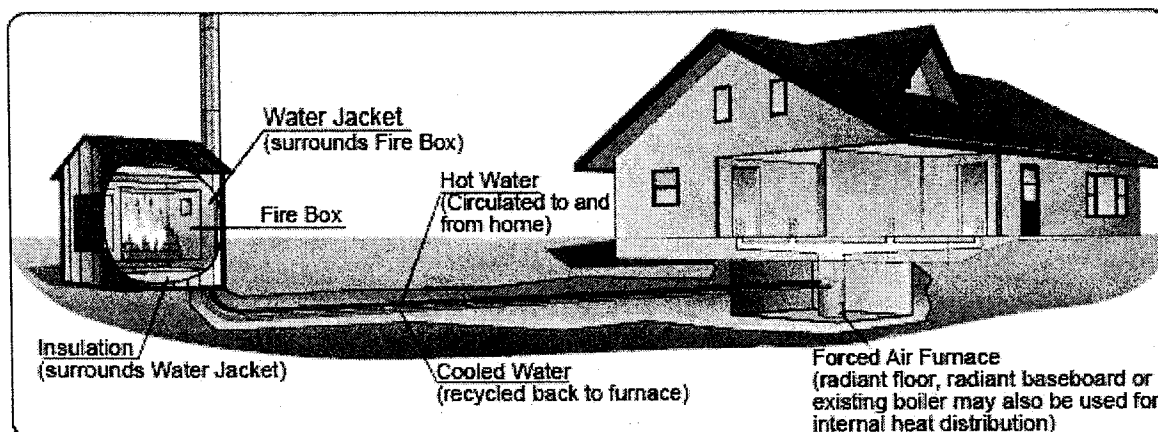
BILL NO. HB262

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## Basic Information

Look for the white hang tag for Phase 2 models that are approximately 90 percent cleaner than models that do not qualify.

An outdoor wood-fired boiler (OWB) is an example of a hydronic heater. OWB typically are located outside the buildings they heat in small sheds with short smokestacks. Typically, they burn wood to heat liquid (water or water-antifreeze) that is piped to provide heat and hot water to occupied buildings such as homes, barns and greenhouses. However, hydronic heaters may be located indoors and they may use other biomass as fuel (such as corn or wood pellets).



Source: [Hearth, Patio and Barbecue Association \(HPBA\)](#)

Unqualified hydronic heaters can be substantially dirtier and less efficient than most other home heating technologies. With their smoldering fires and short smokestacks (usually no more than six to ten feet tall), hydronic heaters create heavy smoke and release it close to the ground, where it often lingers and exposes people in the area to nuisance conditions and health risks.

Although most units are designed to burn dry, seasoned wood, some people use them to burn green wood, which generates much more smoke. Others burn household trash or construction debris, which not only release harmful chemicals and pollution, but can be against state law.

Hydronic heater emissions are a significant concern in many local areas. Numerous scientific studies report potentially serious adverse health effects from breathing smoke emitted by residential wood combustion. Residential wood smoke contains fine particles, which can affect both the lungs and the heart. In some areas, residential wood smoke can be a significant source of exposure to fine particle pollution.

Many local agencies have developed ordinances that ban unqualified hydronic heaters and establish minimum distances to neighbors and minimum stack heights. EPA provided